

REMARKS/ARGUMENTS

The arguments and amendments submitted herein incorporate the patentability arguments and amendments Applicants discussed with the Examiner during the phone interview held on December 18, 2007. Applicants submit that the amendments and arguments presented herein make the substance of the phone interview of record to comply with 37 CFR 1.133. If the Examiner believes that further information on the interview needs to be made of record to comply with the requirements, Applicants request the Examiner to identify such further information.

Claim 5 was amended to add the word “claim” and claim 22 was amended to correct the dependency to claim 20.

The Examiner rejected claims 1-45 as anticipated (35 U.S.C. §102(e)) by Murto (U.S. Patent No. 7,249,100). Applicants traverse with respect to the amended claims.

Amended claims 1, 16 and 31 require: receiving a selection of customer sites to design a network for the customer sites; querying a database to determine geographical locations of the selected customer sites; rendering, in a graphical user interface, representations of the selected customer sites in a map at the geographical location of the selected sites in the map; receiving selection of at least one network service provider (NSP) from a plurality of available NSPs, wherein each available NSP provides network infrastructure available to the geographical location of the selected customer sites to provide network access at the customer sites; querying the database to determine network infrastructure of the selected NSP and geographical locations of the determined network infrastructure; and rendering representations of the determined network infrastructure in a map at the determined geographical locations of the determined network infrastructure to render a visualization of the geographical locations of the selected customer sites and network infrastructure of the selected at least one NSP in the map to enable the design of network infrastructure for the selected customer sites.

Applicants amended the claims to recite that selection of the customer sites is to design a network for the customer sites. This added requirement is disclosed on at least para. 9 of the Specification. Applicants corrected “network sites” to “customer sites” in the second limitation. The claims were further amended to recite that the network service provider (NSP) is selected from a plurality of available NSPs, wherein each available NSP provides network infrastructure available to the geographical location of the selected customer sites to provide network access at

the customer sites. This added requirement is disclosed on at least paras. 42, 51, and 52 and FIG. 6, block 212. The claims were further amended to add the requirement that the representations of the determined network infrastructure are rendered to enable the design of network infrastructure for the selected customer sites. This added requirement is disclosed on at least paras. 58 and 62. Claim 16 was amended to remove the limitation reference numerals.

The Examiner cited col. 2, lines 17-25 as disclosing the pre-amended limitation of receiving selection of customer sites (Office Action, pg. 2), which now recites that selection is received to design a network for the customer sites. Applicants traverse with respect to the amended claims.

The cited col. 2 discusses enabling a mobile phone or wireless PDA to discover Internet businesses and services in a specified geographical location by accessing the Universal Description, Discovery and Integration (UDDI) registry. A query for the wireless device user to query the UDDI registry is formed and typically appended with a user location. The location may be automatically inserted through a locating device, or may be inputted manually by the user. The user's profile, UDDI searching strategies and Internet accessing preferences are constructed to use as shortcut for queries.

The cited col. 2 does not disclose the claim requirement of receiving a selection of customer sites to design a network for the customer sites. Instead, the cited col. 2 discusses a query to determine Internet businesses and services in a specified geographical location of a user of a wireless PDA. Murto mentions that in response to the query, the wireless device receives a list of business names satisfying the query under the selected location. (Col. 2, lines 45-60) The user can select an item from the returned list and select entity data for the business. The wireless device may also receive names of services offered by a selected business. In response to selecting a service, the wireless device may receive a message having details on the selected service, which may include a URL of the selected service on the web site of the business. (Col. 2, lines 57 to col. 3, line 19).

There is no mention or disclosure of selecting customer sites to design a network for the customer sites as claimed. Instead, the cited Murto discusses how to provide a wireless device information on businesses and selected business services at a location of the wireless device.

The Examiner cited FIG. 1, item 100 and col. 2, lines 65-67 of Murto as disclosing the pre-amended claim requirement of receiving selection of at least one network service provider

(NSP) (Office Action, pg. 3), which now recites receiving selection of at least one network service provider (NSP) from a plurality of available NSPs, wherein each available NSP provides network infrastructure available to the geographical location of the selected customer sites to provide network access at the customer sites. Applicants traverse with respect to the amended claims

The cited item 100 in FIG. 1 shows a browser displayed in a user wireless device providing a service discovery request form which indicates the user location and details on the type of business service. The cited col. 2 mentions that the wireless device can receive back from the UDDI registry a list of services offered by selected business, from which the user may select to receive further information, including a URL of a web site for the service. Nowhere does the cited browser 100 anywhere disclose a display of one of a plurality of available NSPs that provide network infrastructure available to the geographical location of selected customer sites. Although the cited Murto discusses how to provide a wireless device information on businesses and services in the location of the wireless device (Murto, col. 9, lines 44-65), there is no disclosure or mention of displaying NSPs providing network infrastructure at selected customer site locations as claimed.

The Examiner cited col. 2, lines 17-25 and col. 1, line 63 of Murto as disclosing the claim requirement of querying the database to determine network infrastructure of the selected NSP that provides network infrastructure in a geographical location of selected customer. (Office Action, pg. 3)

As discussed, the cited col. 2 discusses a user querying a UDDI registry to discover Internet business and services in a geographical location of a wireless device. The cited cols. 1 and 2 mention the need of a mobile phone or wireless PDA to discover Internet businesses and services. Although the cited cols. 1 and 2 discuss discovering Internet businesses and services in the location of a wireless device, there is no disclosure of querying a database to determine the network structure of a selected NSP in a geographical location of a selected customer site. The Examiner has not cited any part of Murto that discloses that the cited Internet businesses and services comprise network infrastructure offered by NSPs in a geographical location of selected customer sites. Instead, the information provided concerns items of interest to a user of a Personal Digital Assistant (PDA) or wireless device, such as the Statue of Liberty. (col. 19, lines 15-24).

The Examiner further cited col. 17, lines 54-58 and col. 18, lines 26-30 with respect to this querying limitation. (Office Action, pg. 3) Applicants traverse.

The cited col. 17 mentions a location based service discovery in Web services and network environments, and communication between the Internet domain, cellular network domain, and user handset. The cited col. 18 discusses standardization in a network. Nowhere do this cited cols. 17 and 18 disclose or mention determining network infrastructure of the selected NSP.

With respect to the last limitation, the Examiner cited col. 18, lines 30-35 as disclosing rendering representations of the determined network infrastructure in a map. (Office Action, pg. 3) Applicants traverse.

The cited col. 18 mentions that a server has three levels of software and locator services, content, portals and middleware. The content consists of a map location and map information service and/or databases. Although the cited col. 18 mentions map information, there is no disclosure or mention of the claim requirement of rendering representations of determined network infrastructure of selected NSPs providing network infrastructure for customer sites.

The Examiner further cited col. 18, lines 26-45 and col. 2, lines 56-67 with respect to the claim requirement of rendering the visualization of the selected customer sites and the network infrastructure of the selected NSP on the map, which now further requires that the visualization map enables the design of network infrastructure for the selected customer sites. (Office Action, pg. 3)

The cited col. 18 mentions that a server has three levels of software and locator services, content, portals and middleware. The content consists of a map location and map information service and/or databases. The cited col. 2 mentions sending a find business XML query to the UDDI registry. Nowhere do these cited cols. 2 and 18 anywhere disclose or mention rendering a visualization of selected customer sites and the network infrastructure of the selected NSP on the map to enable the design of network infrastructure for the selected customer sites.

Accordingly, claims 1, 16, and 31 are patentable over the cited art because the requirements of these claims are not disclosed in the cited Murto.

Claims 2-15, 17-30, and 32-45 are patentable over the cited art because they depend from one of claims 1, 16, and 31, which are patentable over the cited art for the reasons discussed

above. Moreover, the following dependent claims provide additional grounds of patentability over the cited art.

Claims 3, 18, and 33 depend from claims 1, 16, and 31, respectively, and further require that the map comprises a street map, and wherein the rendered map visualizes transportation corridors, and wherein the rendered customer sites and network infrastructure are visualized superimposed over rendered transportation corridors in the street map.

The Examiner cited col. 18, lines 30-35 as disclosing the claim requirement that the rendered customer sites and network infrastructure are visualized superimposed over rendered transportation corridors in the street map. (Office Action, pg. 4) Applicants traverse.

The cited col. 18 mentions that a server has three levels of software and locator services, content, portals and middleware. The content consists of a map location and map information service and/or databases. Although the cited col. 18 mentions a map, the cited col. 18 does not disclose the claim requirement of rendering both customer sites and network infrastructure as visualized superimposed over rendered transportation corridors.

Accordingly, claims 3, 18, and 33 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 5, 20, and 35 depend from claims 1, 16, and 31, respectively, and further require querying network connection information in the database to determine network connections between the rendered customer sites and rendering network connections between the customer sites in the map to visualize the determined network connections.

Applicants amended these claims to clarify that the “connection information” and “connections” are “network connection information” and “network connections”. This added requirement is disclosed on at least paras. 51 and 56 of the Specification

The Examiner cited col. 16, lines 11-19 of Murto as disclosing the additional requirements of these claims. (Office Action, pg. 4) Applicants traverse.

The cited col. 16 mentions that when WAP protocol gateway 120 sends a query message, the message is sent to network interface 420 to invoke a method that creates visit object 428 and stores connection information as a state in visit object 428. Visit object 428 may, in turn, invoke a method in UDDI registry browsing application 440 to browse the UDDI registry 170.

Application 440 sends queries to the UDDI registry, as discussed above.

Nowhere does the above cited col. 16 anywhere disclose determining network connections between rendered customer sites and rendering the network connections to visualize. The cited col. 16 mentions connection information being stored, but there is no disclosure that the cited “connection information” comprises network connections between sites and rendering that information. Instead, the cited connection information in the “visit object” comprises information associated with a network interface session with a wireless device. (col. 15, line 62 to col. 16, line 16).

Accordingly, claims 5, 20, and 35 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 6, 21, and 36 depend from claims 5, 20, and 35, respectively, and further require receiving a query including search criteria with respect to a parameter concerning network connectivity at the customer sites; querying the database to determine network connections between customer sites having network connectivity information satisfying the search criteria included with the query; and rendering the determined network connections in a different visual manner than those network connections that do not satisfy the search criteria.

Applicants amended these claims to clarify that the “connections” comprise “network connections” to conform to the amendments made to intervening claims 5, 20, and 35.

The Examiner cited the above discussed col. 16 of Murto as disclosing the additional requirements of these claims. (Office Action, pg. 5) Applicants traverse.

The cited col. 16 mentions that when WAP protocol gateway 120 sends a query message, the message is sent to network interface 420 to invoke a method that creates visit object 428 and stores connection information as a state in visit object 428. Visit object 428 may, in turn, invoke a method in UDDI registry browsing application 440 to browse the UDDI registry 170. Application 440 sends queries to the UDDI registry, as discussed above.

Nowhere does the above cited col. 16 anywhere disclose the claim requirements of querying a database to determine network connections between customer sites having network connectivity information satisfying the search criteria and rendering the network connections that satisfy the criteria in a different visual manner than those that do not. The cited col. 16 mentions connection information being stored, but there is no disclosure that the cited “connection information” comprises network connections between sites and rendering that information. Instead, the cited connection information in the “visit object” comprises information associated

with a network interface session with a wireless device. (col. 15, line 62 to col. 16, line 16). Thus, the cited col. 16 nowhere discloses or mentions determining network connections between customer sites using search criteria as claimed.

Accordingly, claims 6, 21, and 36 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 8, 23, and 38 depend from claims 1, 16, and 31, respectively, and further require receiving a definition of a buffer region with respect to a selected customer site; querying the database to determine NSP network infrastructure located within the defined buffer region; rendering the buffer region around the rendering of the selected customer site in the map; and rendering the determined NSP network infrastructure within the defined buffer region in the map.

The Examiner cited col. 19, lines 31-35 of Murto as disclosing the additional requirements of these claims. (Office Action, pg. 8) Applicants traverse.

The cited col. 19 mentions that alternate embodiments of the present invention may include location "nests", where location searches can start in a broad geographical region, and may be subsequently narrowed by the user.

Although the cited col. 19 discloses how to nest a search of a location, nowhere is there any disclosure or mention of the claim requirements of querying a database to determine and render on a map NSP network infrastructure within a defined buffer region. Instead, the cited col. 19 discusses location searches in a region.

Accordingly, claims 8, 23, and 38 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 9, 24, and 39 depend from claims 8, 23, and 38, respectively, and further require that the NSP network infrastructure rendered within the defined buffer region is rendered differently than NSP network infrastructure rendered outside of the buffer region.

The Examiner cited the above discussed col. 19 as disclosing the additional requirements of these claims. (Office Action, pg. 6) Applicants traverse.

As discussed, the cited col. 19 mentions that alternate embodiments of the present invention may include location "nests", where location searches can start in a broad geographical region, and may be subsequently narrowed by the user.

Although the cited col. 19 discloses how to nest a search, nowhere is there any disclosure or mention of rendering NSP network infrastructure in a defined buffer region differently from the NSP network infrastructure outside of the region. The cited discussion of how to search in a geographical region nowhere discloses displaying elements within and without of a defined buffer region differently.

Accordingly, claims 9, 24, and 39 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 11, 26, and 41 depend from claims 1, 16, and 31, respectively, and further require that the network infrastructure includes network switches and network paths, wherein rendering the representations of the determined network infrastructure comprises rendering representations of the determined switches in the map, querying the database to determine network paths between the network switches rendered in the map, and rendering the network paths between the network switches in the map.

The Examiner cited col. 18, lines 50-55 of Murto as disclosing the additional requirements of these claims. (Office Action, pg. 6) Applicants traverse.

The cited col. 18 mentions a network having layers, including a core for a mobile communications network (GSM, 3G) and an access layer. Although the cited col. 18 discusses aspects of a wireless network, there is no disclosure of rendering representations of determined switches and querying a database to determine network paths between the switches in a map and rendering the network paths. Instead, the cited col. 18 discusses a network environment and does not recite the requirements concerning rendering network paths as claimed.

Accordingly, claims 11, 26, and 41 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 12, 27, and 42 depend from claims 11, 26, and 41, respectively, and further require that the map comprises a street map, and wherein the network paths are rendered superimposed over transportation corridors rendered on the map.

The Examiner cited col. 18, lines 30-35 as disclosing the additional requirements of these claims. (Office Action, pg. 7) Applicants traverse.

The cited col. 18 mentions that the content consists of a map location and map information service. The map information communicates to the applications. Other content may

be included. Murto discusses providing information on business services to the user of the wireless device. (col. 9, lines 49-67)

Although the cited Murto discusses providing mapping information in the context of providing a user of a wireless device with information on selected business services, there is no disclosure or mention of the claim requirements of rendering network paths superimposed over transportation corridors rendered on the map.

Accordingly, claims 12, 27, and 42 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Claims 14, 29, and 44 depend from claims 1, 16, and 31, respectively, and further require receiving selection of a plurality of customer sites rendered in the map; receiving a definition of parameters of a buffer region with respect to the selected customer sites; determining buffer regions for each of the selected customer sites satisfying the defined parameters for the buffer region; querying the database to determine NSP network infrastructure located within each determined buffer region; rendering each determined buffer region around each selected customer site in the map; and rendering the determined NSP network infrastructure within each defined buffer region in the map.

The Examiner cited col. 18, lines 33-40 as disclosing the claim requirements of querying the database to determine NSP network infrastructure located within each determined buffer region and rendering each determined buffer region around each selected customer site in the map. (Office Action, pg. 7) Applicants traverse.

The cited col. 18 mentions that content consists of a map location and a map information service that communicates to the portals/applications under an open consortium. Other content may also be included, and accessed through UDDI.

Although the cited col. 18 mentions a map location and information service, the cited col. 18 does not disclose the claim requirement of rendering querying the database to determine NSP network infrastructure located within each determined buffer region and rendering each determined buffer region around each selected customer site in the map. Instead, the cited col. 18 discusses how to provide map information in the context of providing wireless device information on selected business services, but does not mention determining network infrastructure in buffer regions around a customer site and rendering that network infrastructure information.

Accordingly, claims 14, 29, and 44 provide additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited Murto.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-45 are patentable. Should any additional fees be required beyond those paid, please charge Deposit Account No. 50-0585.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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